RARITAN VALLEY COMMUNITY COLLEGE
ACADEMIC COURSE OUTLINE

IDMX – 233 Introduction to PHP

I. Basic Course Information

A. Course Number and Title: **IDMX-233 Introduction to PHP**

B. New or Modified Course: **Modified**

C. Date of Proposal: Semester: **Fall** Year: **2018**

D. Effective Term: Fall 2019

E. Sponsoring Department: Visual and Performing Arts (VAPA)

F. Semester Credit Hours: **3**

G. Weekly Contact Hours: **4** Lecture: **2**
Laboratory: **2**
Out of class student work per week: **5**

H. Prerequisites/Corequisites: **A grade of C or Higher in IDMX-225 Web Development I and a Computer Programming Elective.**

I. Laboratory Fees: **Yes, at current rate.**

J. Name and Telephone Number or E-Mail Address of Department Chair and Divisional Dean at time of approval: **Vandana Nadkarni vnadkarn@raritanval.edu & John A. Sichel john.sichel@raritanval.edu (Co-Chairs); Patrice Marks patrice.marks@raritanval.edu (Dean of Liberal and Fine Arts)**

II. Catalog Description

Prerequisites: A grade of C or Higher in IDMX-225 Web Development I and a Computer Programming Elective. This course is an introduction to the use of PHP as a server side scripting tool on the World Wide Web. Students will use PHP to create scripts that make decisions, loop through code, perform string manipulation, and handle HTML forms. Near the end of the course, students will have an opportunity to work with MySQL to store data from a Web page in a relational database and display output from a database on a PHP enabled web page.

III. Statement of Course Need

A. Today's Web is dynamic. Different users have different experiences on the same site. Today's Web developers need to be proficient in scripting languages such as PHP that allows data to be manipulated on the server and returned to the browser as pure HTML. Developers also need to learn how to use relational databases such as MySQL in order to store and retrieve data.

B. The course has a lab component to give students the opportunity to create and run PHP scripts during class as well as store and retrieve data from a MySQL database.

C. This course generally transfers as a computer science elective or free elective.

IV. Place of Course in College Curriculum

A. Free Elective
B. This course does not serve as a General Education course
C. This course serves as a Computer Elective on the Computer and Programming Electives List
D. This course meets a program requirement for…

    a. Interactive Digital Media & Web Development A.A.S. Degree
    b. Interactive Digital Media & Web Development A.S. Degree
    c. Interactive Digital Media & Web Development Certificate

E. To see course transferability: a) for New Jersey schools, go to the NJ Transfer website, www.njtransfer.org; b) for all other colleges and universities, go to the individual websites.

V. Outline of Course Content

1. Installing PHP
2. Naming and creating variables in PHP
3. Type casting
4. Operators and Expressions
5. Making Decisions
6. Looping
7. Creating and Accessing Strings
    a. Searching Strings
    b. Replacing Text Within Strings
    c. Formatting Strings
8. Creating Arrays
    a. Accessing Array Elements
    b. Looping Through Arrays
    c. Manipulating Arrays
    d. Multi-dimensional Arrays
9. Functions

    a. Creating functions
    b. Calling functions
10. Objects
    a. Basic OOP Concepts
    b. Creating and Using Properties
    c. Working with Methods
    d. Object Overloading
    e. Constructors and Destructors
11. Handling HTML Forms with PHP
    a. Capturing Form Data with PHP
    b. Dealing with Multi-Value Fields
    c. Generating Web Forms with PHP
    d. Storing PHP Variables in Forms
    e. Creating File Upload Forms
    f. Redirecting After Form Submission
12. Saving State with Query Strings
    a. Building and Accessing Query Strings
13. Working with Cookies
    a. Setting, Accessing, and Removing Cookies
14. Using Sessions to Store Data
    a. Creating, Reading, Writing, and Destroying Session Data
    b. Passing Session IDs in Query Strings
15. Working with File Directories
    a. Opening and Closing Files
    b. Reading and Writing to Files
16. Understanding Relational Databases
    a. Normalization
17. Introduction to MySQL
    a. Creating New Database
    b. Creating a Table
    c. Adding, Reading, Updating, Deleting Data from a Table
18. Connecting to MySQL from PHP
    a. Making a Connection
    b. Handling Errors
    c. Reading Data
    d. Using SELECT Statements
    e. Pulling Data from Multiple Tables
19. Manipulating MySQL Data with PHP
    a. Inserting, Updating and Deleting Records
    b. Creating Login and Logout scripts

VI. General Education and Course Learning Outcomes

A. <u>General Education Learning Outcomes:</u>

At the completion of the course, students will be able to:

1. Collaborate with others to create dynamic Web Pages that share data. (GE 4)
2. Save and retrieve HTML form data from a MySQL database (GE 4)
3. Use PHP to create HTML forms that can be stored and retrieved in a file, session, or database (GE 4)
4. Design and develop relational databases that can be used to save and retrieve appropriate data in the appropriate format. (GE 4)

B. Course Learning Outcomes:

At the completion of the course, students will be able to:

1. Create and manipulate variables in PHP
2. Design and implement PHP functions
3. Create and instantiate objects using PHP

C. Assessment Instruments

1. demonstrations
2. portfolios
3. computer programs

VII. Grade Determinants

A. Quizzes
B. In-Class Lab Exercises
C. Homework …
D. Exams – Exams will assess both conceptual and practical knowledge
E. Class Participation
F. Optional Project assigned by the Instructor

A. lecture/discussion
B. laboratory

VIII. Texts and Materials

A. Suggested textbook:
   - *Learning PHP, MySQL & JavaScript: With jQuery, CSS & HTML5 (Learning Php, Mysql, Javascript, Css & Html5) 4th Edition* by Robin Nixon
     Publisher: O'Riley
     ISBN-13: 978-1491918661

B. Other computer-based sources:

- Appropriate Open Access Web Development resources (these resources change rapidly over time so the professor will have to assess what is currently available).

(Please Note: The course outline is intended only as a guide to course content and resources. Do not purchase textbooks based on this outline. The RVCC Bookstore is the sole resource for the most up-to-date information about textbooks.)

IX. Resources

A. Computer access
B. Access to remote Web server with PHP and MySQL (such as the RVCCMCCS01 server).
C. Modern web browsers (Chrome, Safari, Mozilla, Edge, etc.)
D. Modern industry-standard web development software.

(Resources may change from semester to semester, due to the pace of the industry.)